

Customer No.: 31561
Docket No.: 11579-US-PA
Application No.: 10/710,419

REMARKS

Present Status of the Application

Claims 1-13 are rejected. Specifically, claims 1-11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Lei et al. (U.S. Patent No. 7,008,867; hereinafter Lei). Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lei in view of Tseng et al. (U.S. Publication No. 2003/0124832; hereinafter Tseng). Claims 2-13 are objected for indefinite.

Applicant has amended claim 1 to provide more descriptions according to the present invention and has added claim 24 to further define the features of the present invention. After carefully considering the remarks set forth in this Office Action and the cited references, Applicants respectfully submitted that the presently pending claims are in condition for allowance and such reasons will be discussed hereinafter. A notice of allowance is most earnestly solicited.

Discussion of Claim rejections under 35 USC 112

Claim 2 was objected for indefinite. The Office Action noted that claim 2 recited "the UBM layer comprises : an adhesion layer and the bump".

Applicant respectfully points out that the bumps have been recited in claim 1 "A wafer structure, comprising: ...; and a plurality of bumps, disposed on the UBM layer" so that the UBM layer does not comprise the bump. Moreover, the bump recited in claim 2 is used for defining the relative position between the barrier layer and the wetting layer. Therefore, Applicant believes that there is no indefinite present in the claim 2.

As the issue is cleared herein, withdrawal of this objection is respectfully requested.

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Discussion of Claim Rejections under 35 USC 102

Applicant respectfully traverses the 102(e) rejection of claims 1-11 and 13 because Lei does not teach every element recited in these claims.

Examiner has stated that the first UBM layer 16A and the polymer layer 18 in Lei are regarded as first metallic layer and the second passivation layer, respectively. Applicants respectfully disagree.

Applicants would like to particularly point out that the structure disclosed in Fig. 1D of Lei is temporal since a portion of the first UBM layer 16A above the passivation layer 14 and the polymer layer 18 are removed in successively process as shown in Fig. 1F. In the present invention, the first metallic layer and the passivation layer are permanently existed in final structure.

In detail, Lei discloses that the first UBM layer 16A and the second UBM layer 16B in Fig. 1D are not patterned layers and then the first UBM layer 16A and the second UBM layer 16B are patterned in Fig. 1F. The first UBM layer 16A and the second UBM layer 16B are patterned after the polymer layer 18 is removed [column 5, line 65 to column 6, line 4, Fig. 1E and 1F]. In the amended claim 1 of the invention, the UBM layer above each of the bonding pads is detached from the others while the second passivation layer is existed. Therefore, Lei does not teach every element recited in the amended proposed claim 1.

Applicants respectfully submit that, as disclosed above, independent claim 1 patently defines over the prior art reference, and should be allowed. Lei still fails to disclose the features as recited in newly added dependent claim 24. For at least the same reasons, dependent claims 2-13 and 24 patently define over the prior art as a matter of law, for at least the reason that these dependent claims contain all features of their respective independent claim.

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Discussion of Claim Rejections under 35 USC 103

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lei in view of Tseng. Applicant respectfully traverses the rejections for at least the reasons set forth below.

With at least the reasons discussed above and applied to the amended claim 1, the amended claim 1 is not disclosed by Lei. Furthermore, as Lei fails to disclose all the features recited in independent claim 1, the combination of Lei with Tseng still fails to disclose the features recited in independent claim 1.

Accordingly, Applicant respectfully submits that dependent claim 2-13 and 24 patentably define over the prior art references, either alone or in combination.

Reconsideration and withdrawal of these 103 rejections are respectfully requested.

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CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims of the invention patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

Date :

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